

FIG. 1

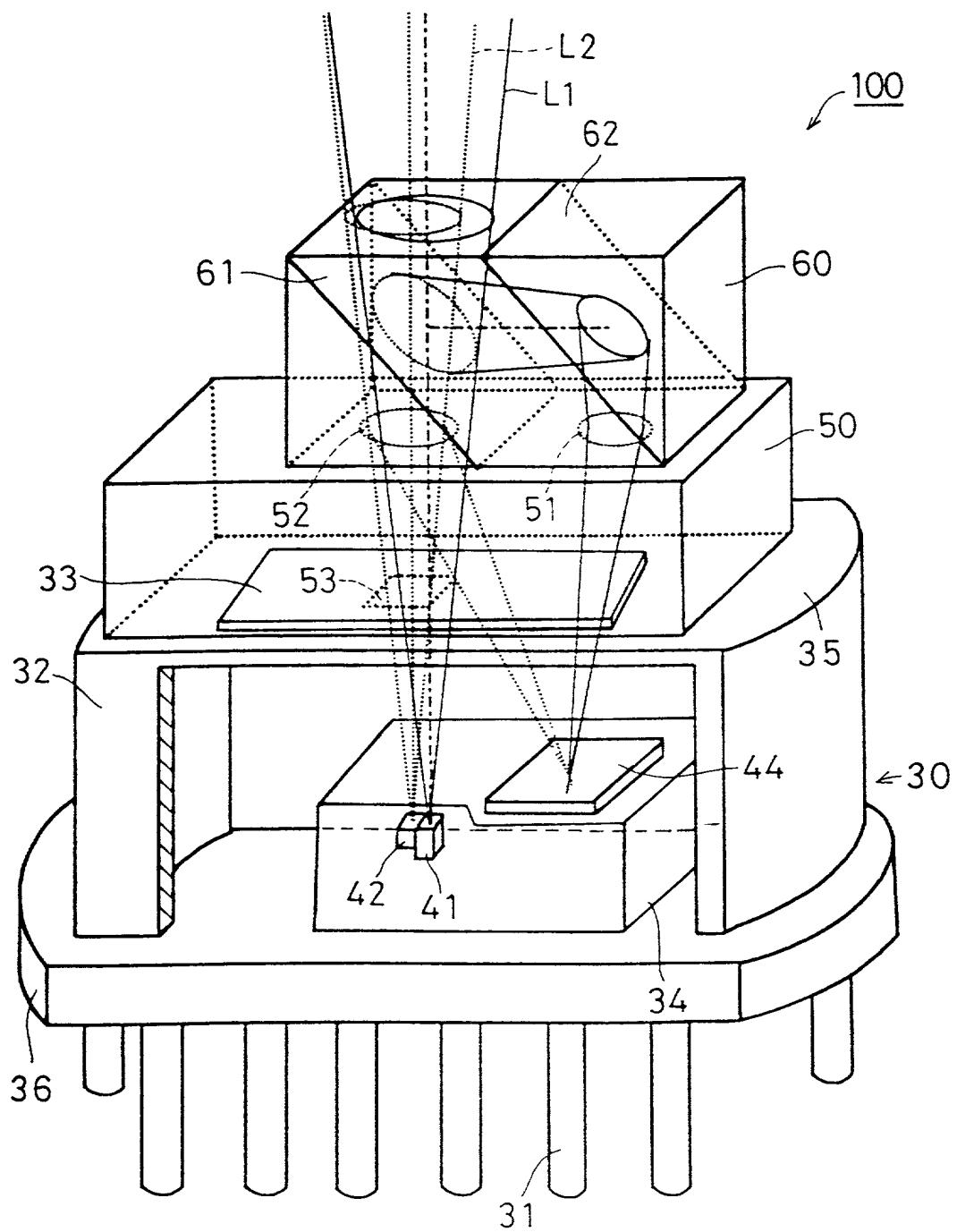


FIG. 2

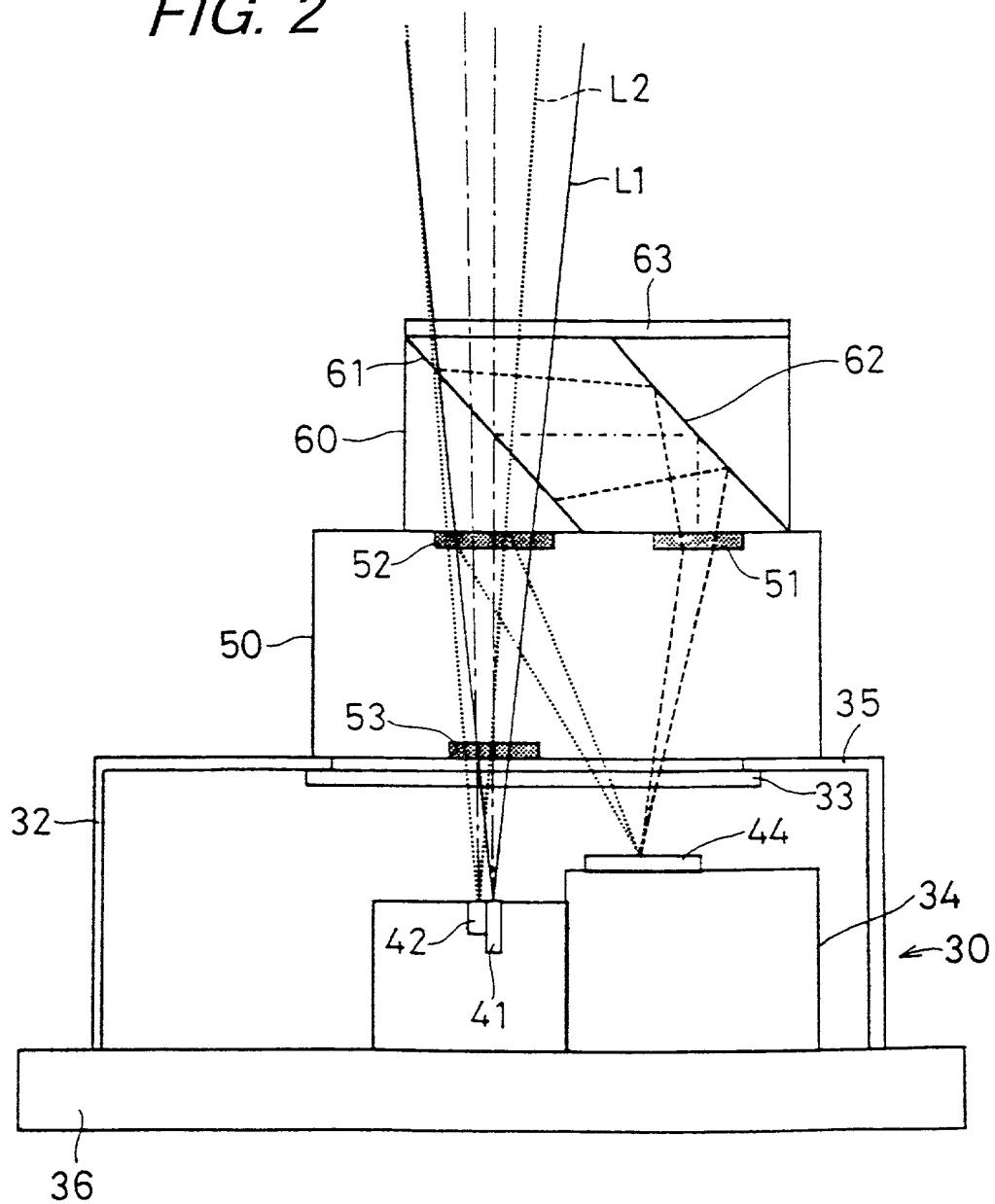
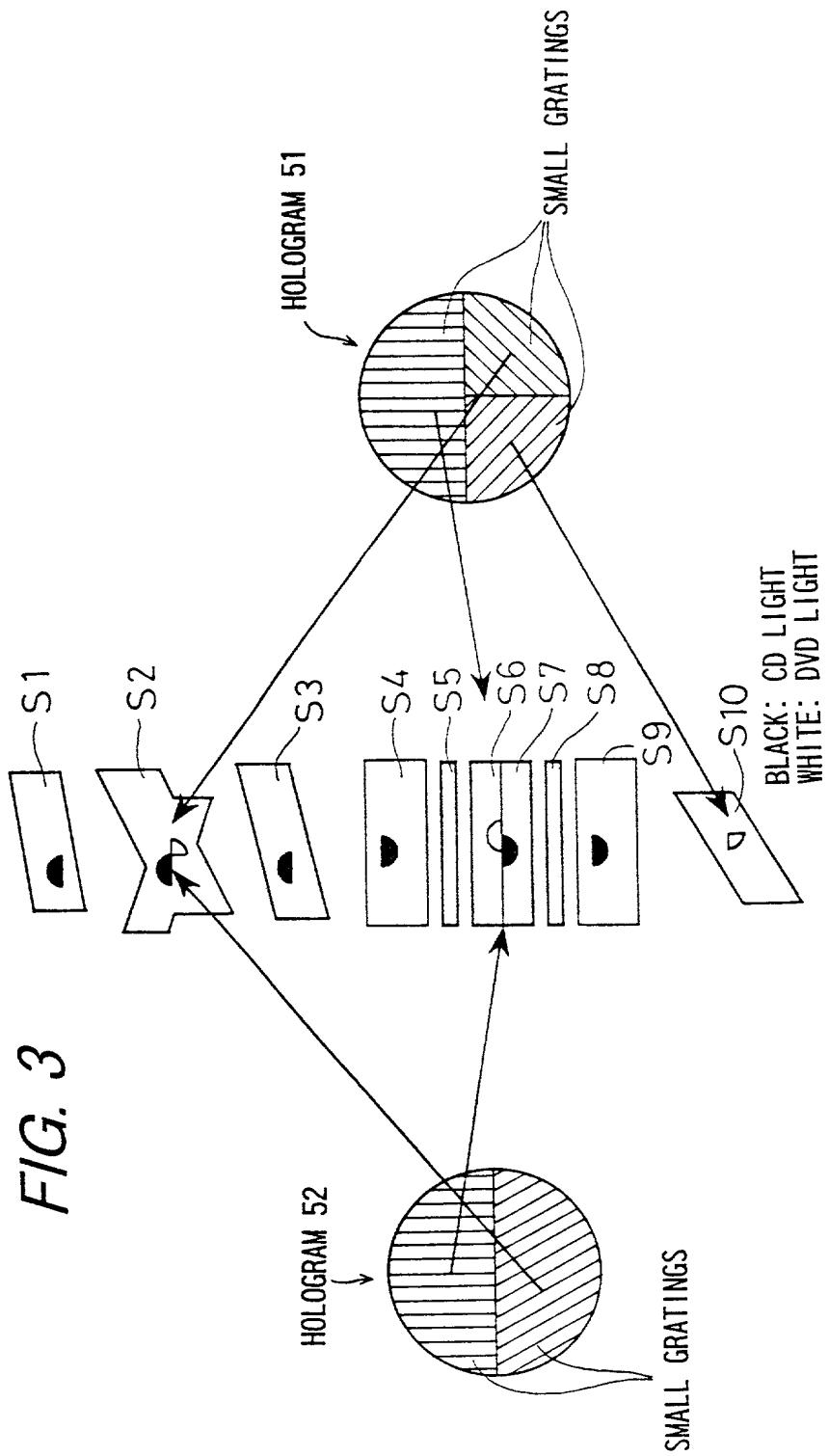


FIG. 3



$$\begin{aligned}
 \text{CD SIGNALS} \\
 \text{FES (KNIFE EDGE)} &= (S5 + S7) - (S6 + S8) \\
 &= (S2 + S5 + S6 + S7 + S8) \\
 \text{RF} \\
 \text{TES (THREE-BEAM)} &= (S1 + S4) - (S3 + S9) \\
 \text{DVD SIGNALS} \\
 \text{FES (KNIFE EDGE)} &= (S5 + S7) - (S6 + S8) \\
 &= (S2 + S5 + S6 + S7 + S8 + S10) \\
 \text{RF} \\
 \text{TES (DPD)} &= (S2 - S10)
 \end{aligned}$$

FIG. 4

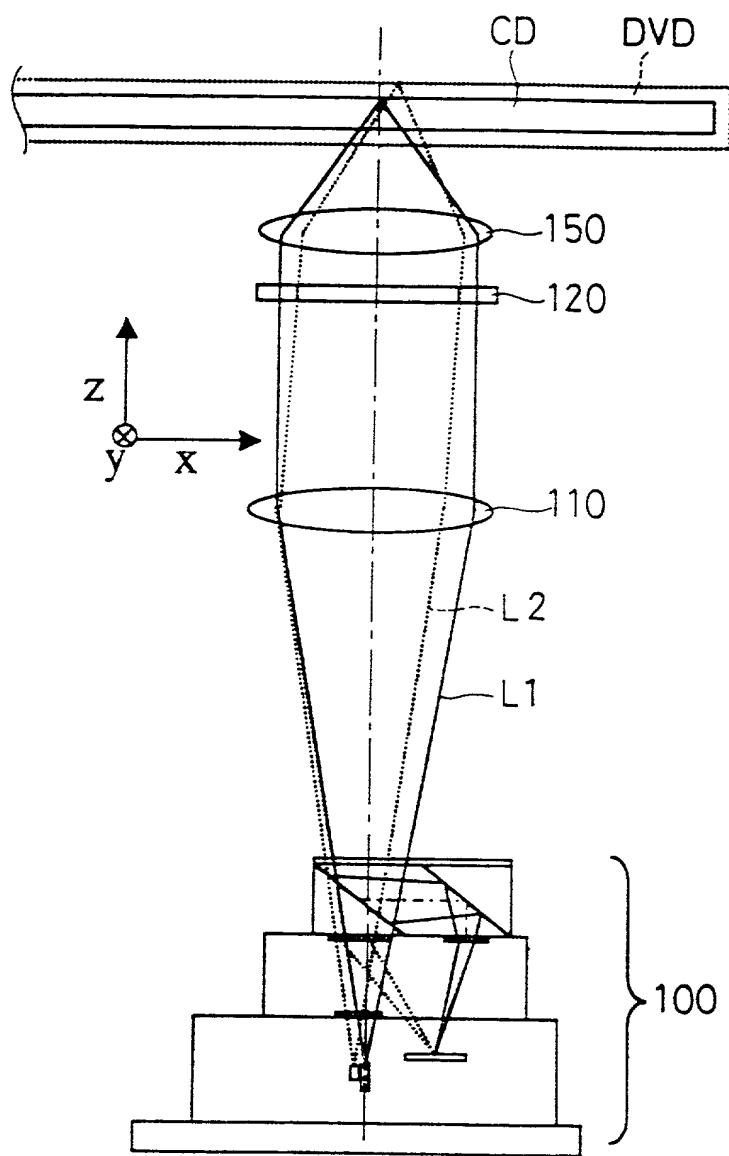


FIG. 5

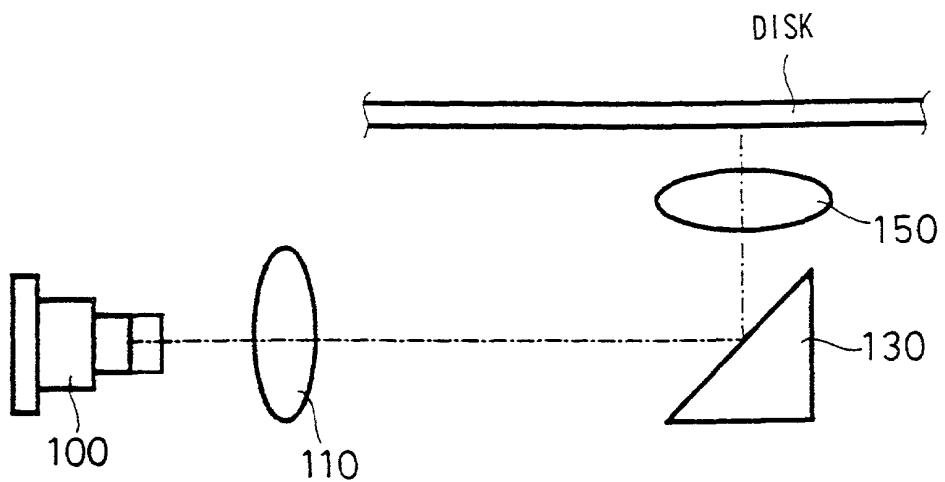


FIG. 6A

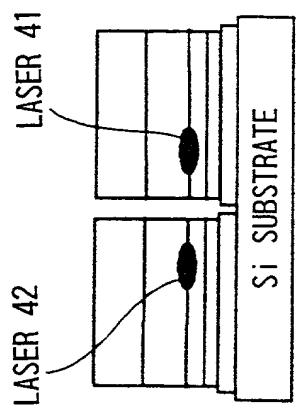


FIG. 6C

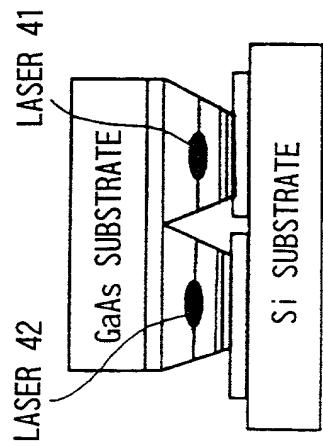


FIG. 6B

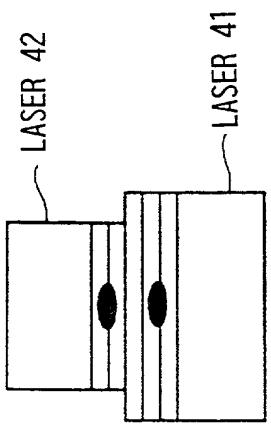


FIG. 6D

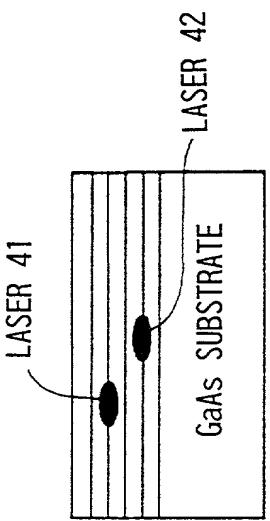


FIG. 7

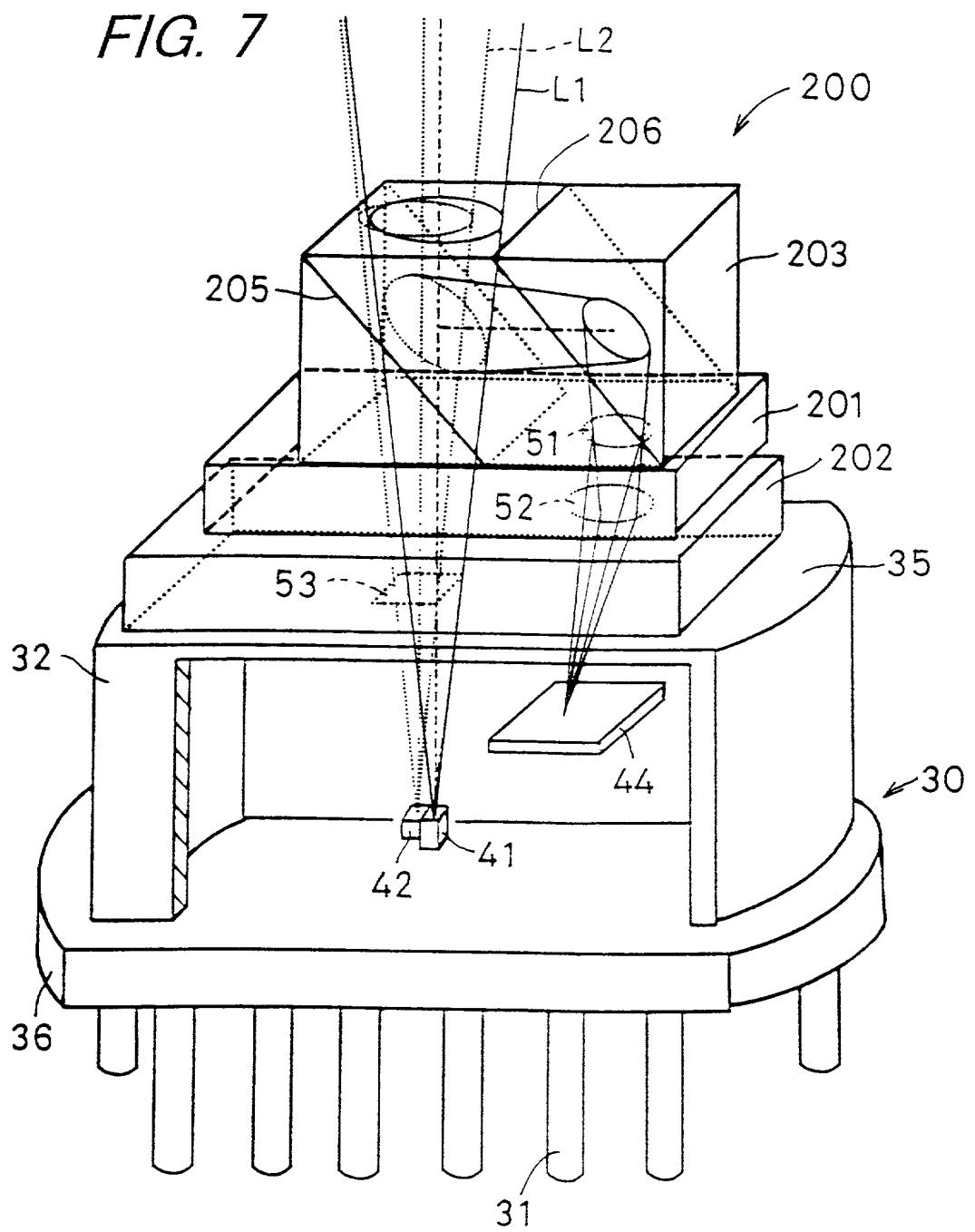


FIG. 8

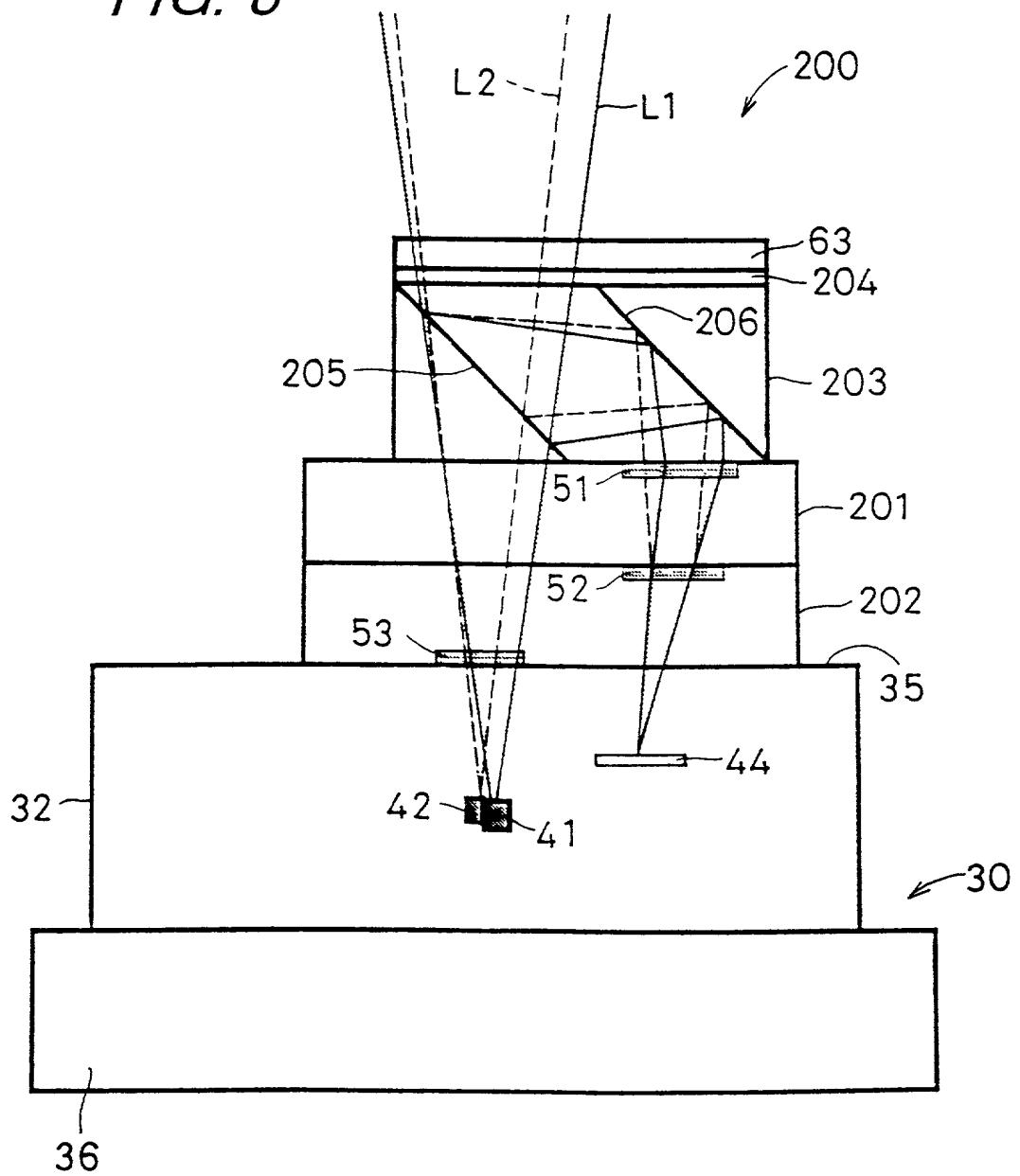
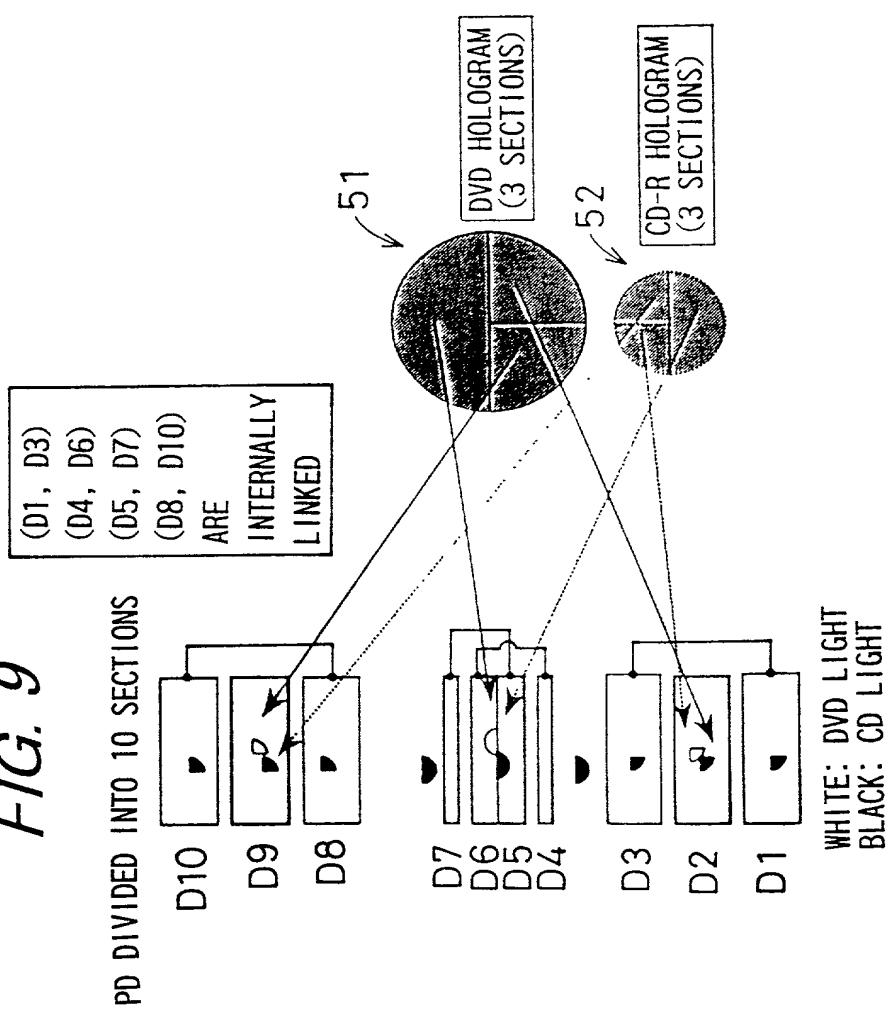


FIG. 9



| | |
|---|--|
| CD SIGNALS (3 BEAMS) | DVD SIGNALS (1 BEAM) |
| FES (KNIFE EDGE) = $(D4 + D6) - (D5 + D7)$ | FES (KNIFE EDGE) = $(D4 + D6) - (D5 + D7)$ |
| RF = $D2 + (D4 + D6) + (D5 + D7) + D9$ | RF = $D2 + (D4 + D6) + (D5 + D7) + D9$ |
| TES (DPP) = $(D2 - D9) - K\{(D1 + D3) - (D8 + D10)\}$ | TES (DPP) = $D2 - D9$ |

FIG. 10

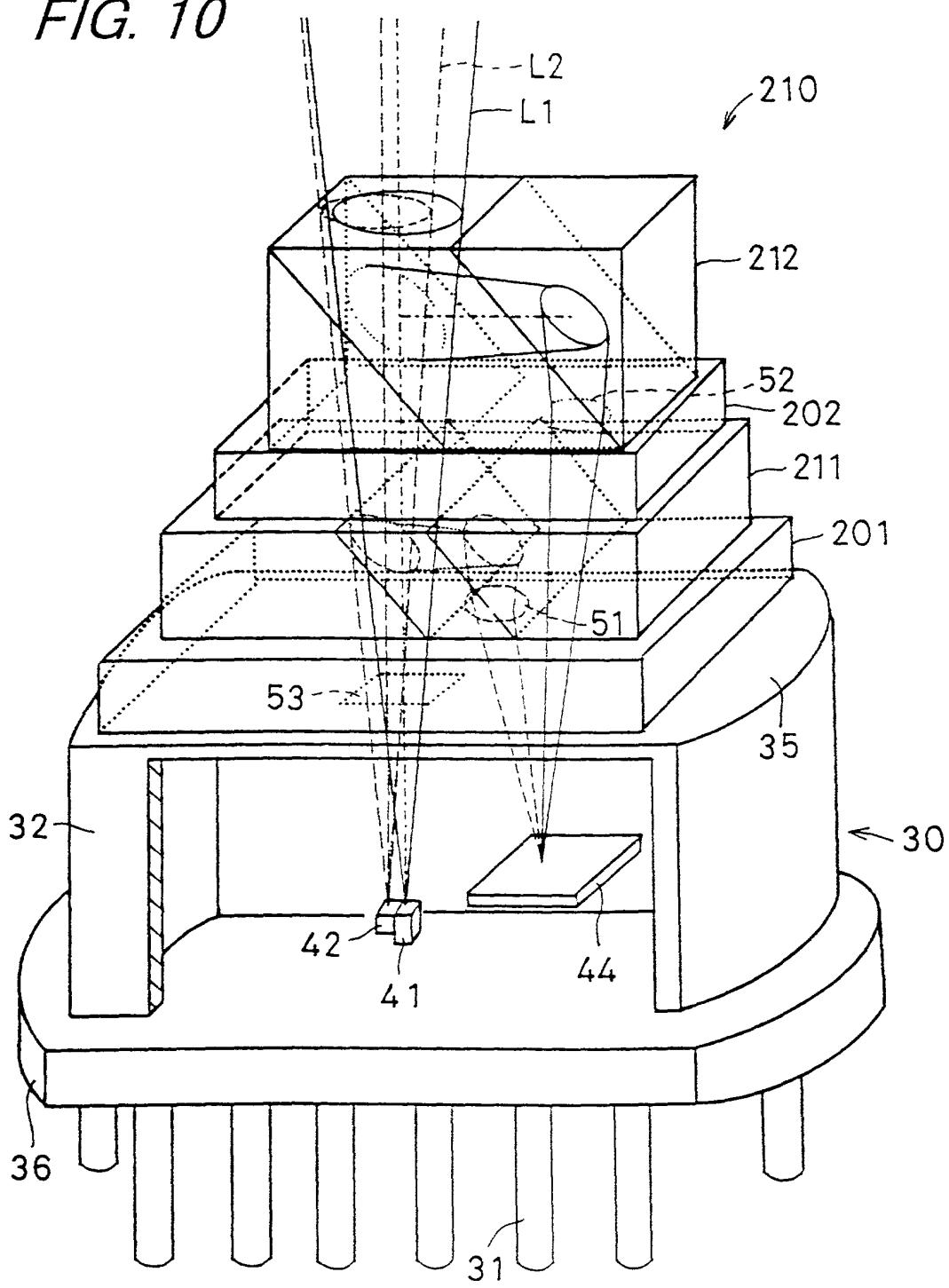


FIG. 11

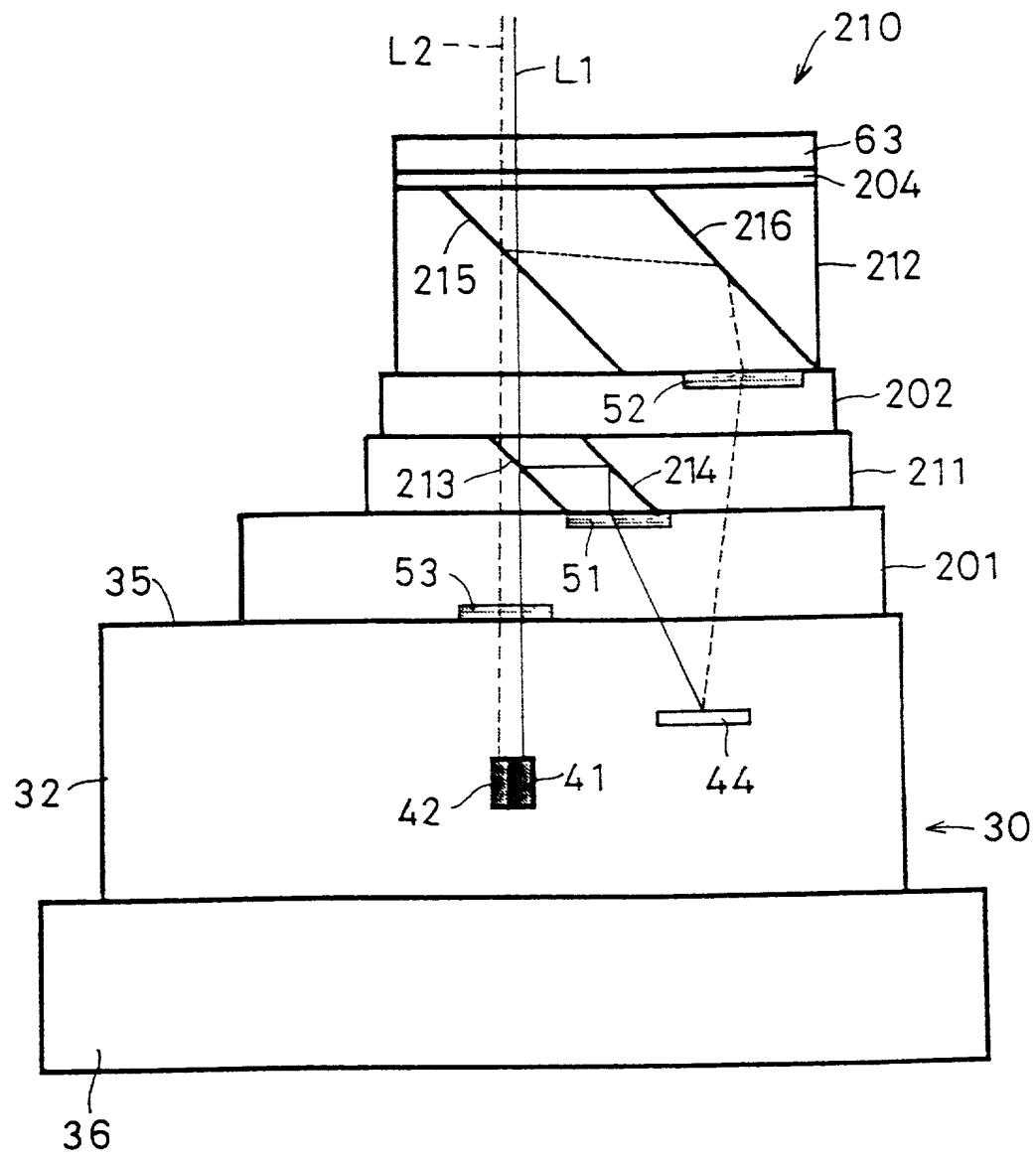
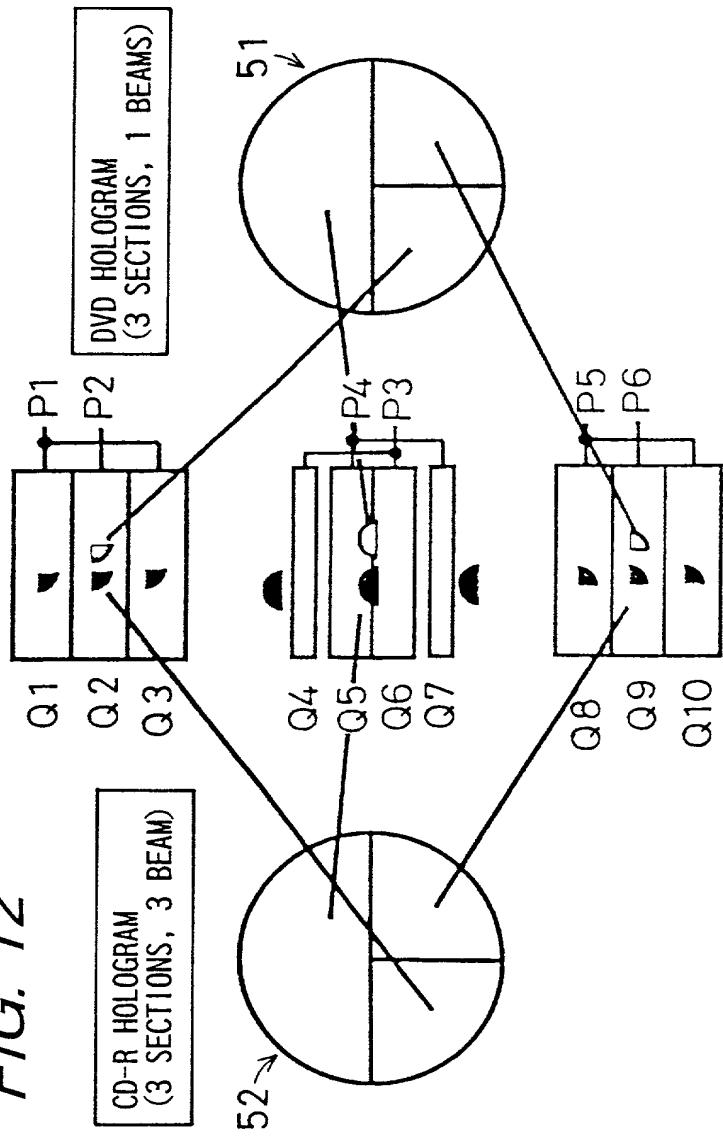


FIG. 12



$Q_1 \cdot Q_3 = P_1$, $Q_4 \cdot Q_6 = P_3$, $Q_5 \cdot Q_7 = P_4$, $Q_8 \cdot Q_{10} = P_5$ ARE INTERNALLY LINKED

CD SIGNALS (3 BEAMS)

$$RF = Q_2 + Q_4 + Q_6 + Q_5 + Q_7 + Q_9$$

$$FES = (Q_4 + Q_6) - (Q_5 + Q_7)$$

$$TES(DPP) = (Q_2 - Q_9) - K * [(Q_1 + Q_3) - (Q_8 + Q_{10})]$$

DVD SIGNALS (1 BEAM)

$$RF = Q_2 + Q_4 + Q_6 + Q_5 + Q_7 + Q_9$$

$$FES = (Q_4 + Q_6) - (Q_5 + Q_7)$$

$$TES(DPD) = \text{Phase}(Q_2 \cdot Q_9)$$

FIG. 13 PRIOR ART

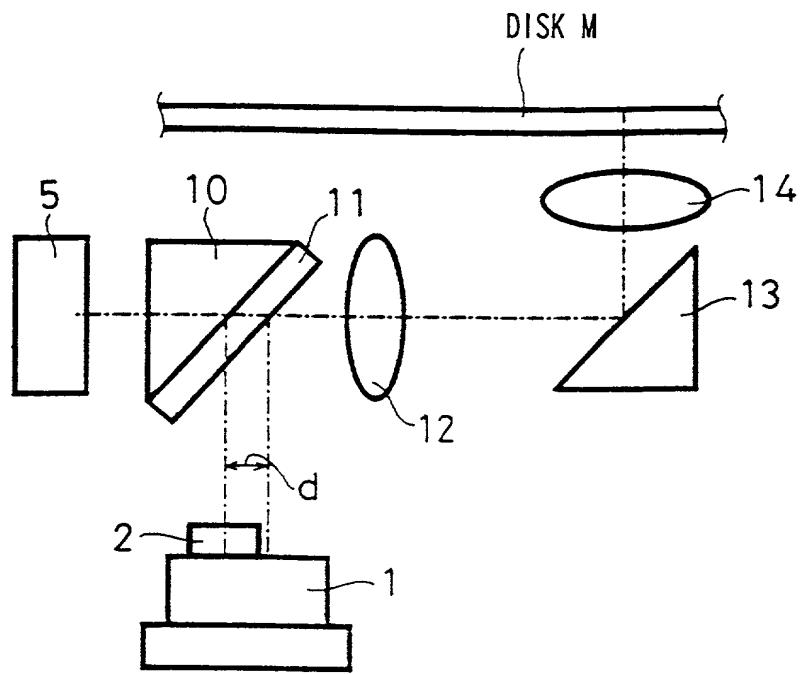


FIG. 14 PRIOR ART

